

STRELETS, V. A.

Strelets, V. A.

"The effect of tuberculin and tuberculous infection on the unconditioned interoceptive reflexes." Acad Sci USSR. Inst of Physiology imeni I. P. Pavlov, Leningrad, 1956. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No. 25, 1956

STRELETZOV, V.A.

STRELETZOV, V.A.

Analysis of interoceptive reflexes in experimental tuberculosis.  
Report No.3: Effect of tuberculin on reflexes from chemoreceptors  
of an isolated segment of the small intestine in healthy cats  
[with summary in English]. Biul.eksp.biol. i med. 43 no.4:53-57  
Ap '57. (MIRA 10:10)

1. Iz ot dela eksperimental'noy patologii i terapii (zav. - kandidat  
meditsinskikh nauk G.S.Kan) Leningradskogo nauchno-issledovatel'skogo  
instituta tuberkuleza (dir. - prof. A.D.Semenov, nauchnyy konsul'tant  
deystvitel'nyy chlen AMN SSSR V.N.Chernigovskiy). Predstavlena  
deystvitel'nym chlenom AMN SSSR V.N.Chernigovskim.

(TUBERCULIN, eff.

on blood pressure changes induced by stimulation of  
isolated small intestine in cat)

(BLOOD PRESSURE,

eff. of tuberculin on pressure changes induced by  
stimulation of isolated small intestine in cats)

(INTESTINE, SMALL, physiol.

eff. of stimulation inducing blood pressure changes  
in cats, eff. of tuberculin)

STRELETS, V.A. (Leningrad)

Interoceptive reflexes in experimentally induced tuberculosis in cats  
[with summary in English]. Arkh.pat. 20 no.3:36-43 '58.

(MIRA 11:5)

1. Iz laboratorii eksperimental'noy patologii i terapii (zav.-kand.  
med.nauk G.S. Kan) Leningradskogo nauchno-issledovatel'skogo instituta  
tuberkuleza imeni A.Ya. Shternberga (dir.-prof. A.D. Smenov, nauchnyy  
konsul'tant-chlen-korrespondent AN SSSR deystvitel'nyy chlen AMN  
SSSR prof. V.N. Chernigovskiy).

(TUBERCULOSIS, exner.

eff. on unconditioned interoceptive reflexes in cat (Rus)  
(REFLEX

unconditioned interoceptive reflexes, eff. of tuberc. in  
cat (Rus)

STRELETS, V.A., mladshiy nauchnyy sotrudnik

Effect of a tuberculous infection on the higher nervous activity  
of rabbits. K izuch.roli nerv.sist.v pat., immun.i lech.tub.  
no.2:131-137 '61. (MIRA 15:10)

1. Iz laboratorii eksperimental'noy patologii i terapii (zav. -  
G.S.Kan) Leningradskogo nauchno-issledovatel'skogo instituta  
tuberkuleza.

(REFLEXES) (TUBERCULOSIS)

STRELETS, V.A., mladshiy nauchnyy sotrudnik

Role of the nervous system in the development of a focus of  
primary tuberculous inflammation in the skin of guinea pigs;  
report No. 1. K izuch.roli nerv.sist.v pat., immun.i lech.tub.  
no.2:198-211 '61. (MIRA 15:10)

1. Iz laboratorii eksperimental'noy patologii i terapii (zav. -  
G.S.Kan) Leningradskogo nauchno-issledovatel'skogo instituta  
tuberkuleza.

(SKIN--TUBERCULOSIS) (NERVOUS SYSTEM)

STRELETS, V.A.; RUTSKO, L.A.

Apparatus and method for the quantitative estimation of pulmonary ventilation in small animals. Biul. eksp. biol. i med. 55/ i.e. 56/ no.10:123-125 (1963) (MIRA 17:8)

1. Iz laboratorii eksperimental'noy patologii i terapii (zav. - G.S. Kan) Leningradskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - prof. A.D. Semenov). Predstavlena akademikom V.N. Chernigovskim.

STRELETS, V.G.

~~STRELETS, V.G.~~

Dissertation defended at the Institute of Physiology imeni I. P. Pavlov  
for the academic degree of Candidate of Biological Sciences: 1962

"Objective Evaluation of the result of Training Equilibrium Organs in  
Pilots Using New Devices."

Vestnik Akad Nauk, No. 4, 1963, pp. 119-145

I 9552-66 EVT(1)/FS(v)-3 DD  
ACC NR: AP6000342

SOURCE CODE: UR/0286/65/000/021/0038/0038

9  
B

AUTHOR: Strelets, V. G.

ORG: none

TITLE: Equilibrium and spatial-orientation training device. Class 30, No. 176034

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 38

TOPIC TAGS: equilibrium training, spatial orientation, training device

ABSTRACT: An Author Certificate has been issued for an equilibrium and spatial-orientation training device (see Fig. 1). The device consists of a rotating base (1), and

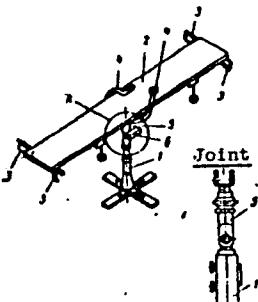


Fig. 1. Equilibrium and spatial-orientation training device.

Card 1/2

UDC: 613.735.002.54:612.886

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ACC NR: AP6000342

a board (2) gimbaled to the base, which has movable arm and leg rests (3), and straps (4) for fastening the subject. A recording device (6) registers the position of the board, which can tilt in two mutually perpendicular directions because of the gimbal joint (5). Orig. art. has: 1 figure. [JS]

SUB CODE: LS/ SUBM DATE: 29Jan64/ ATD PRESS: 4157

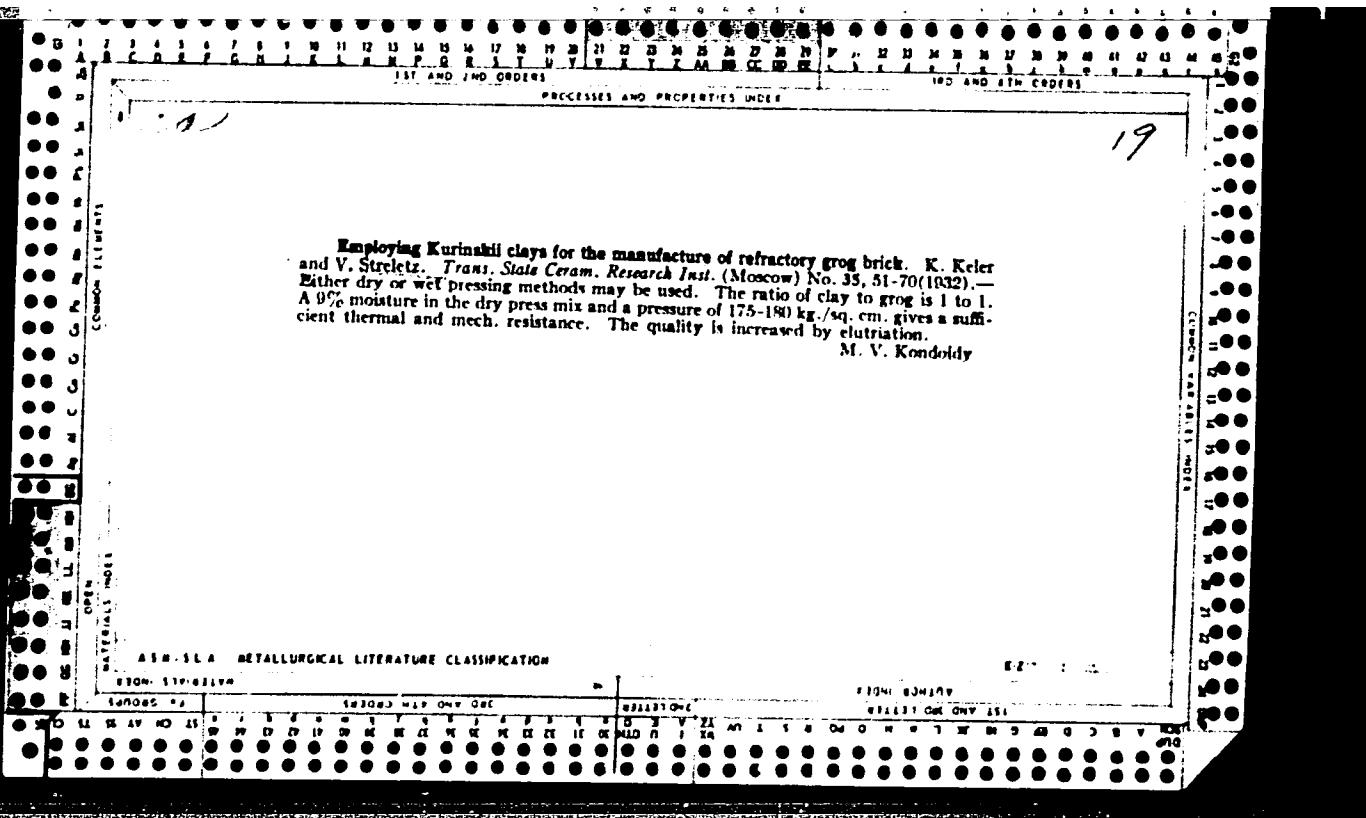
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Card 2/2

STRELETS, V. L.; KISRIYEV, S. A., agronom-entomolog

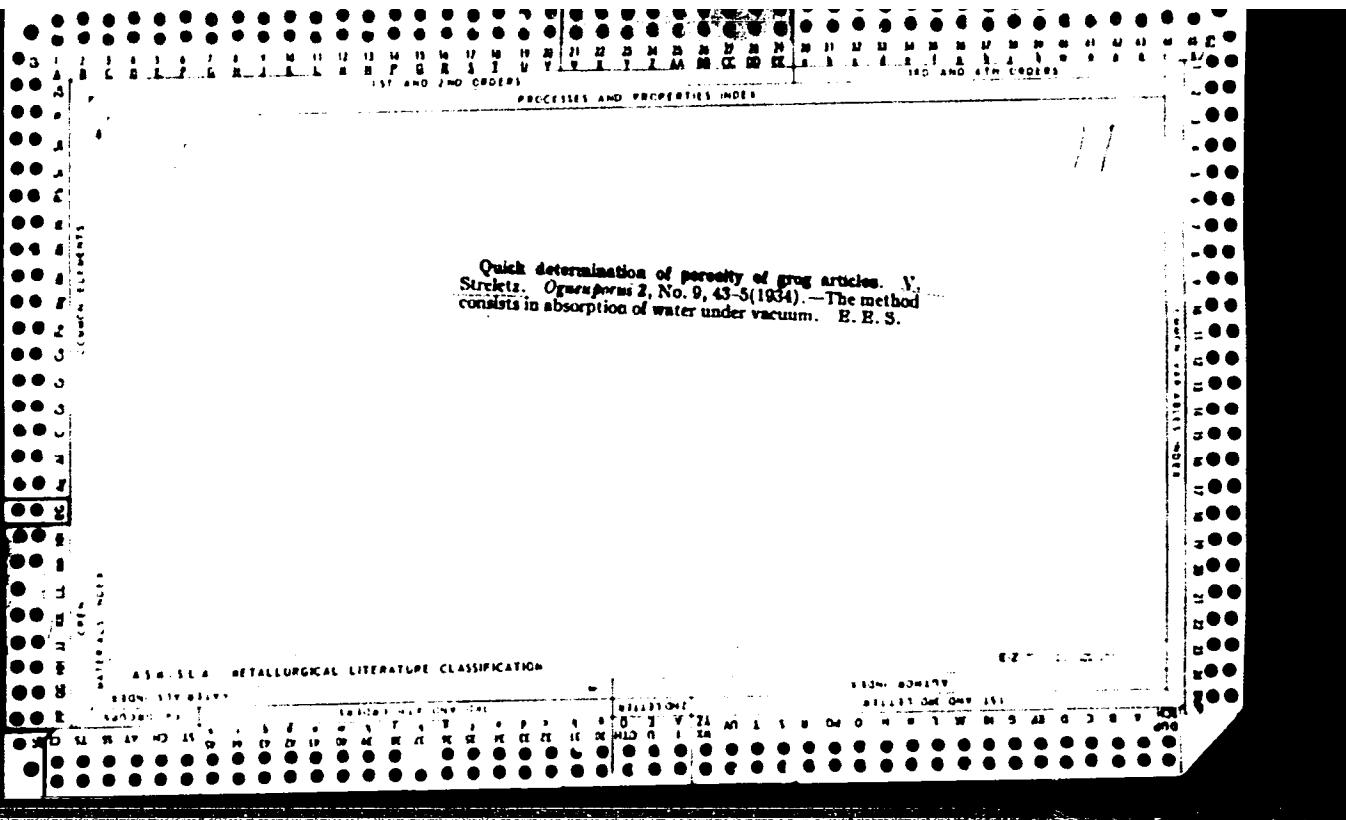
Science helps. Zashch. rast. ot vred. i bol. 5 no.6:8-10  
Je '60. (MIRA 16:1)

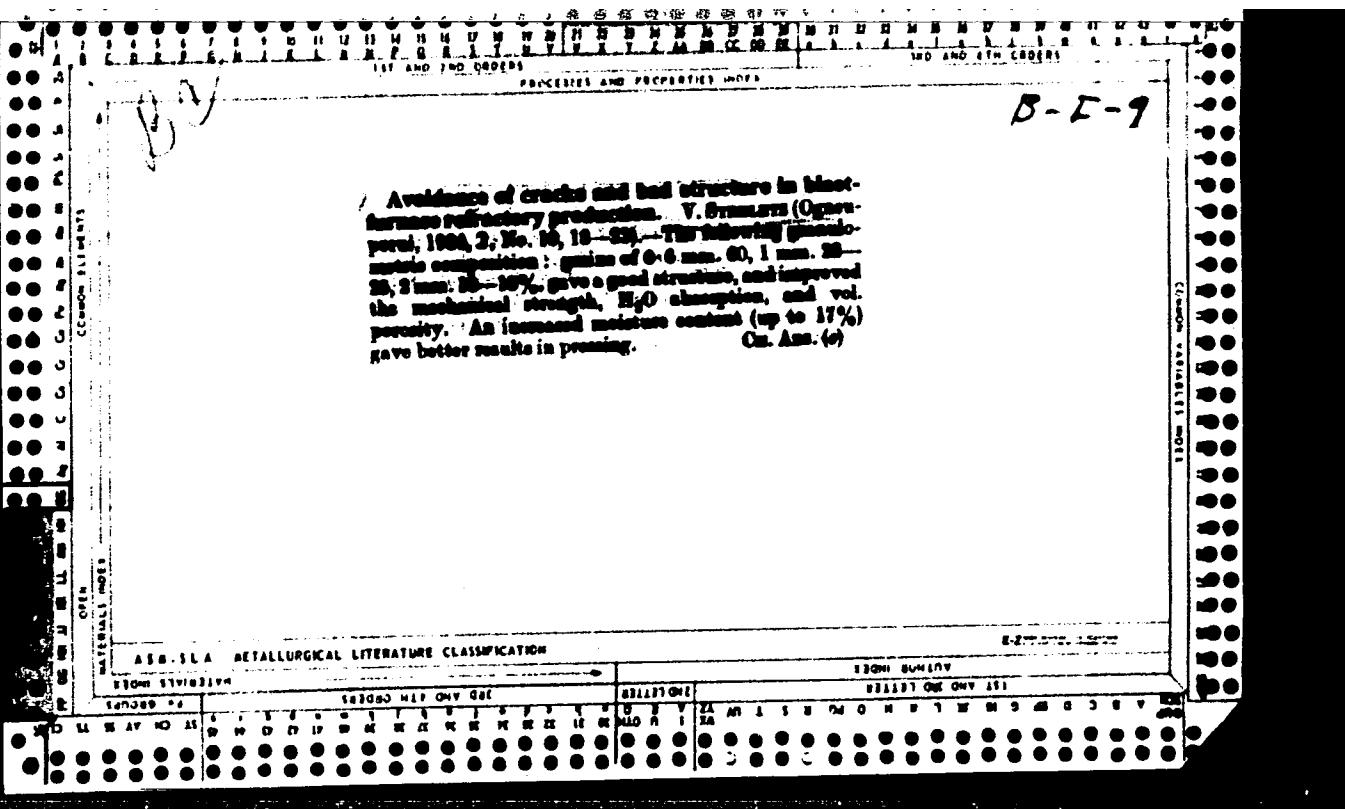
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Krymskaya obl.

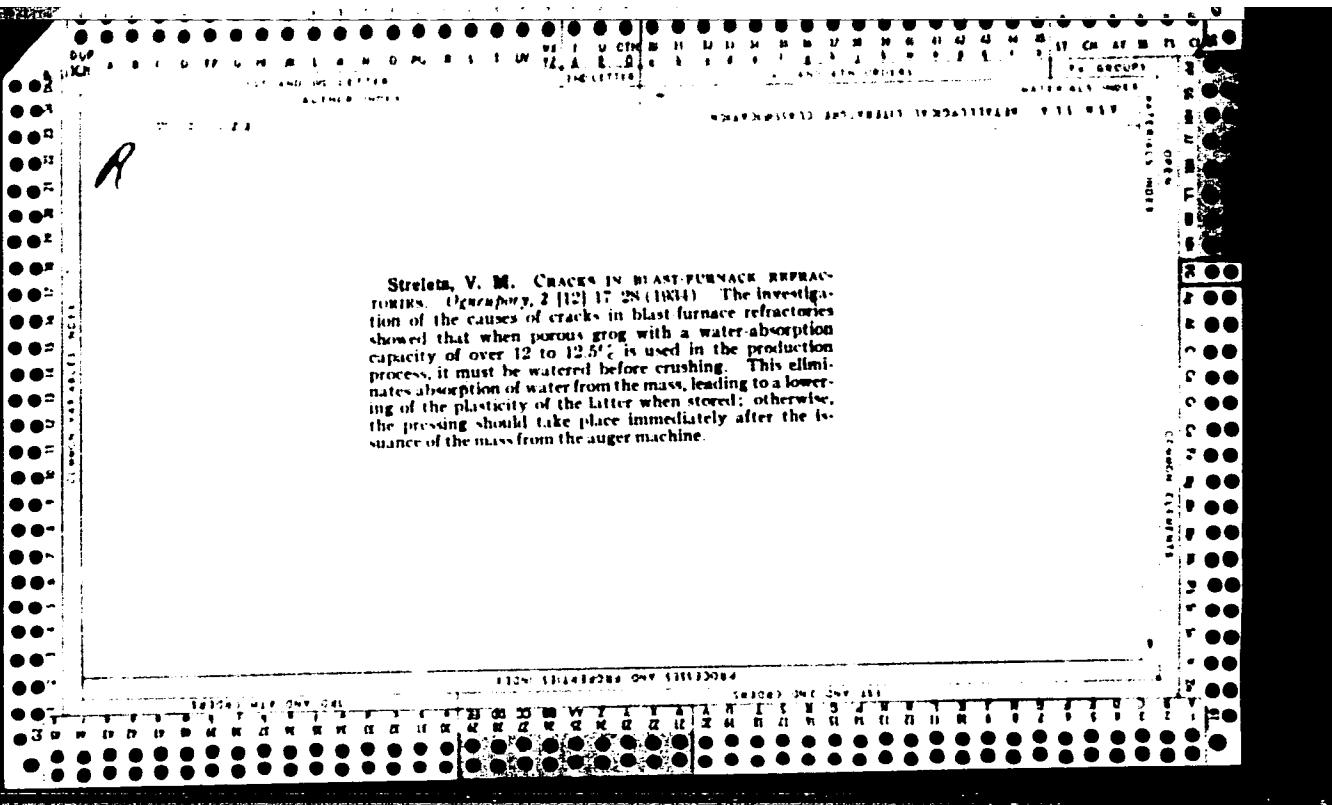
(Crimea—Fruit—Diseases and pests)  
(Crimea—Plants, Protection of—Research)



Strelot, V. M. METHODS OF AVOIDING CRACKS AND  
BAD STRUCTURE IN THE PRODUCTION OF REFRactories FOR  
BLAST FURNACES. *Ogneprary*, 2 [10], 18-23 (1934).  
The following granulometric composition gave a good  
structure and improved the mechanical strength, water  
absorption, and volume per unit area of 1.0 mm. 0%  
of 1 mm, 22 to 23%, and of 2 mm, 10 to 13%. An in-  
creased moisture content (to 16 to 17%) gave better re-  
sults in pressing.

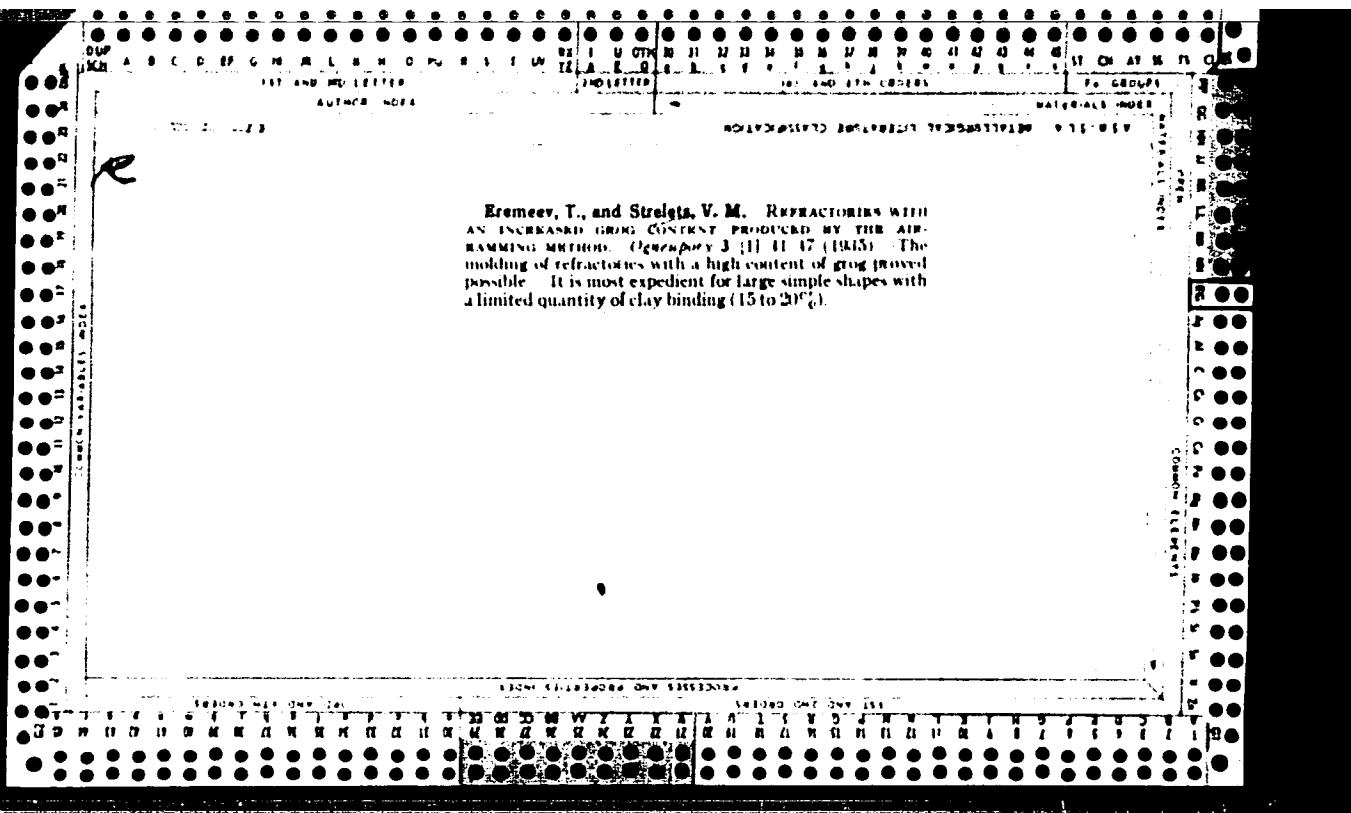






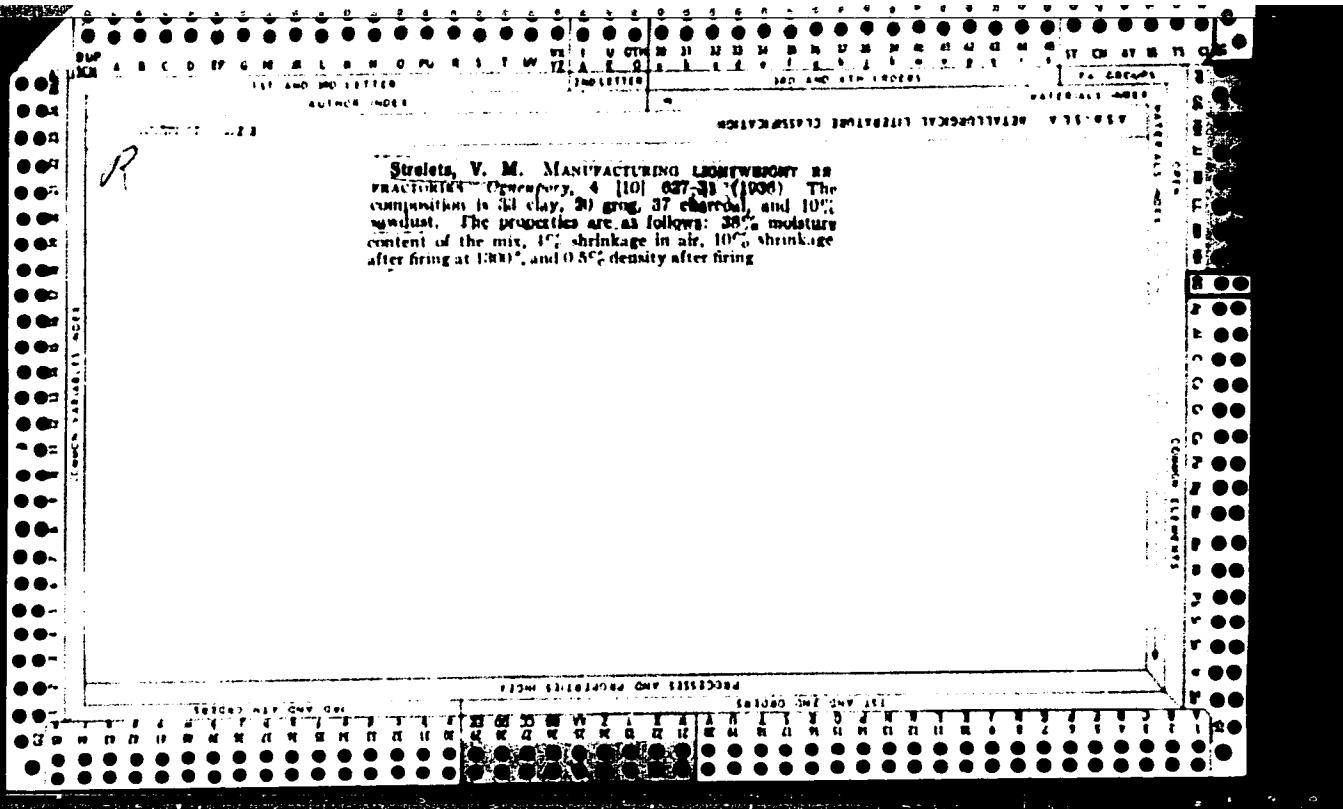
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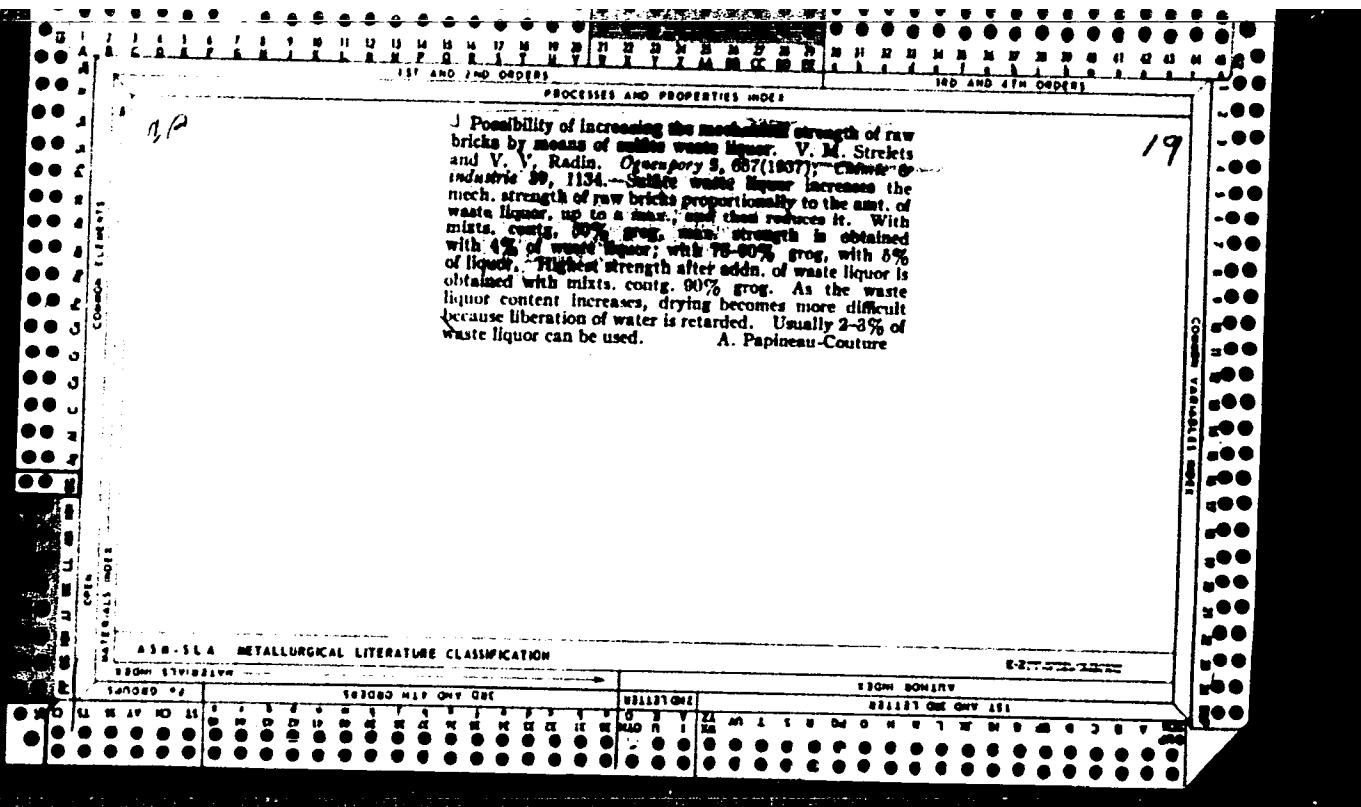
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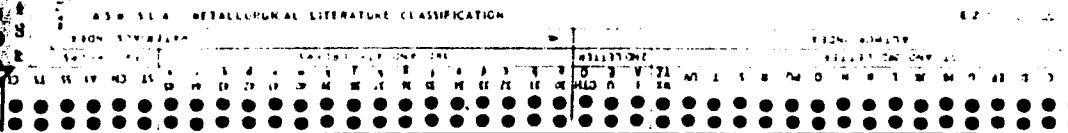
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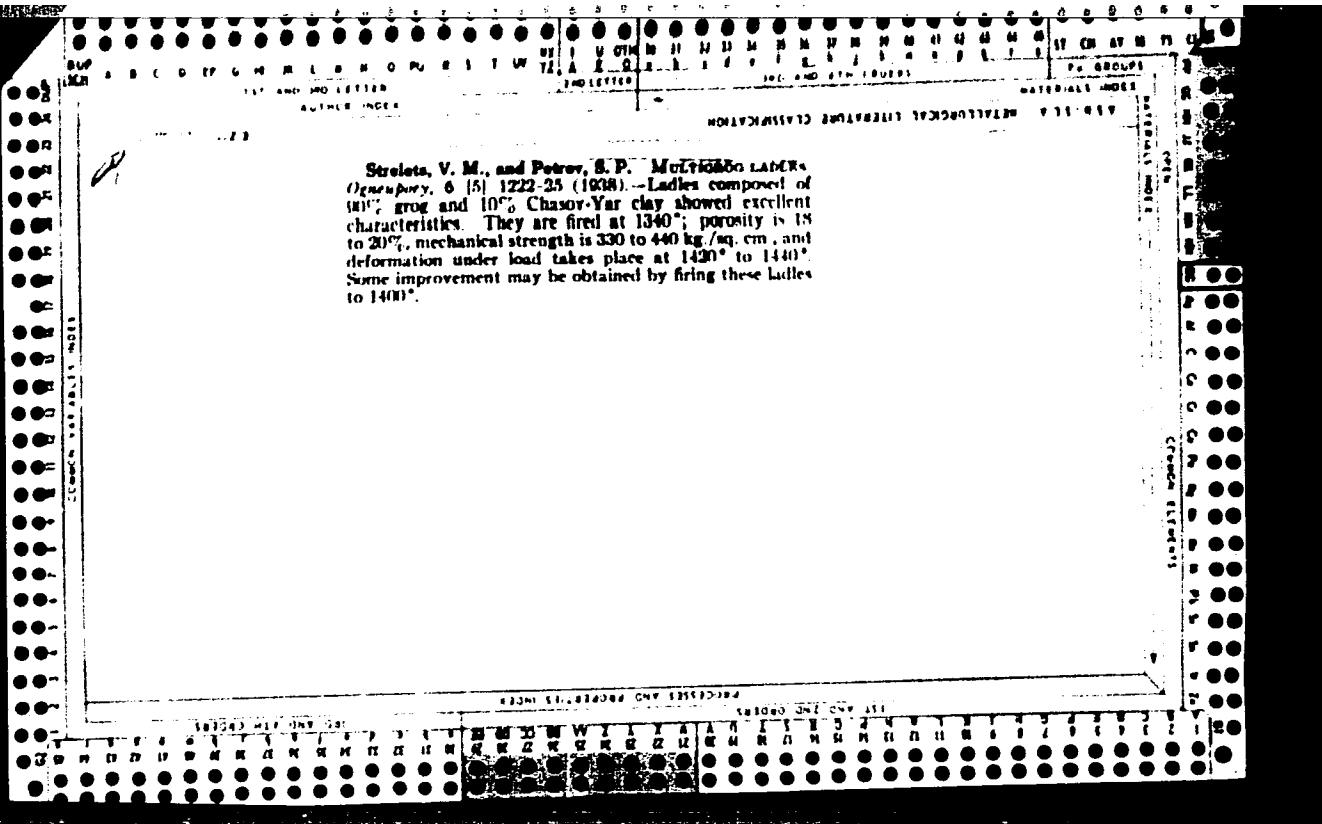




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\*Electrolytic Production of Magnesium-Zinc Alloys. V. M. Guskov and H. L. Strilets (*Trudi Vsesoznogo Aluminio-Magnievo Instituta ("VAM")*) (*Trans. Aluminum-Magnesium Inst.*, 1987, (14), 71-80). -[In Russian.] In the production of magnesium-zinc alloys by electrolysis of fused carnallite above a molten zinc cathode at 500-730° C., temperature has little effect on the current yield until the magnesium content of the cathode reaches 30%, after which the highest yield (90%) is obtained at 550-680° C., using a current density of 1.2 amp. cm.<sup>-2</sup>. The energy consumption is about 13 kw. hr. kg. of magnesium. D. N. S.





EXPERIMENTAL PRODUCTION AND TESTING IN SERVICE OF SEMI-  
ACID STEEL-CASTING REFRACTORIES FROM BOROVICHI-LYUBYTINO  
CLAY. V. M. Strel'ts, G. V. Grabovskii and S. P. Petrov.  
*Ogneupory* 7, 518-23 (1939). Grog and semi-acid  
may be used; the refractoriness must not be under 1600°,  
the porosity not under 28%; exact size and a smooth  
working surface are essential; in spalling resistance tests  
no through cracks should be formed after the first cooling.  
U. D. Gafanowich

ASLIB METALLURGICAL LITERATURE CLASSIFICATION

1400000-24

1400000-24

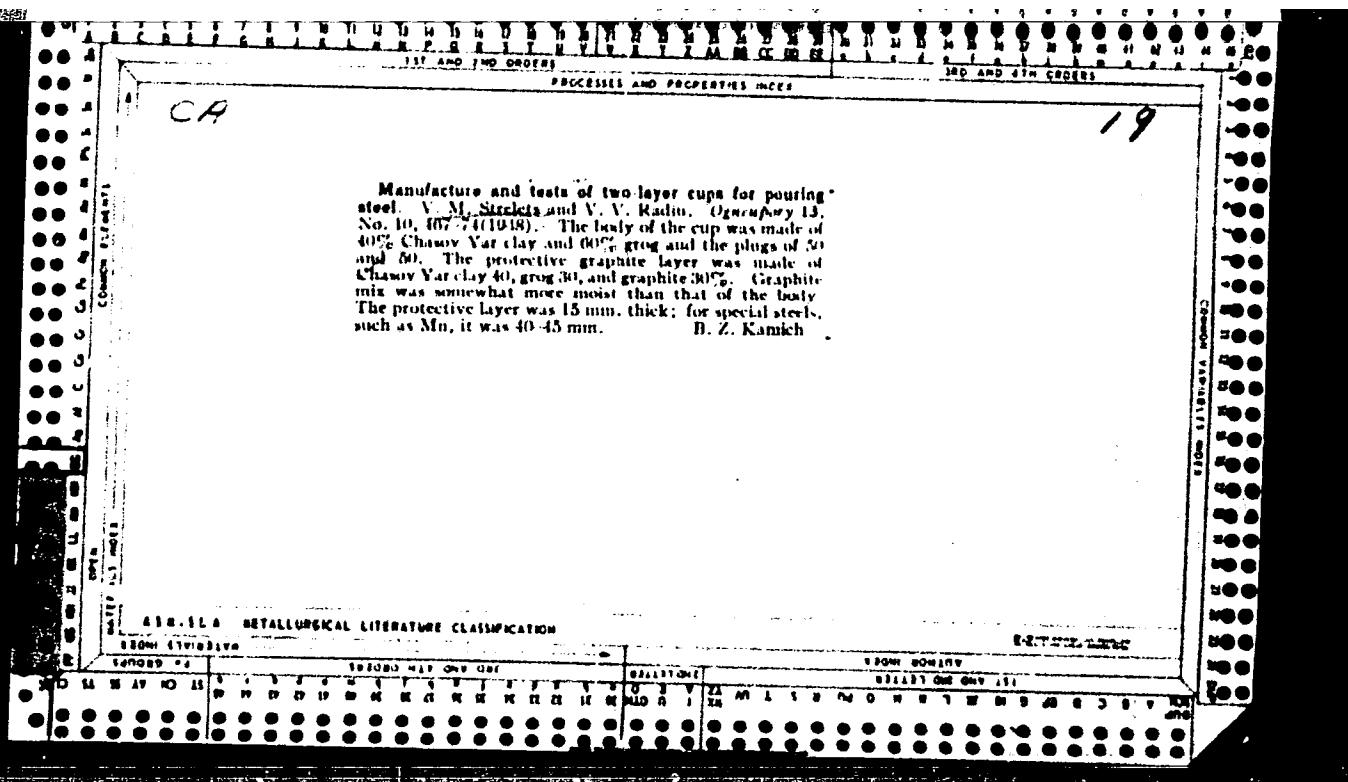
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A quick method for determination of refractoriness and deformation under load at high temperatures. V. M. Strelets and P. V. Nevzolinova. Ogneupory 6, 210-3 (1940). The following firing schedule is suggested for detn. of refractoriness of grog ware: increase in temp. to 1500° at the rate of 15° per min. and from 1500-1750° at 6° per min. For detn. of deformation under load a rise of 17° per min. up to 800° and of 10° per min. at higher temps. is suggested. R. R. S.

STRELTS, V. M.

Manufacture of heat resistant lightweight refractories with a bulk density of 0.9 to 1.0 g using combustible admixtures. S. V. GLEBOV, YA. A. GOL'VIN, E. A. GERMAN, AND V. M. STRELTS. Vsesoyuz. Gosudarst. Inst. Nauch-Issledovatel i Proekt. Rabot Ogneupor. Prom. Inst. Ogneupor, Lekkov. Ogneupory, 1945, no. 11-39.- Extensive data are given on laboratory and commercial scale manufacture of lightweight refractories with the aid of combustible admixtures. A flowsheet is given.  
B.Z.Y.



*B.C.S.*

*Refractories 5/1949*

992. On the production of bricks containing a high percentage of grog at the Borovich "Order of the Red Labour Sign Red Ceramic Combine," V.M. Shchelkis (Ozerny, Ld, 243, 1948). Experiments are described in which fire-bricks were produced containing up to 85% grog, first on a laboratory scale and then under industrial conditions. The bond clays used were Lubitinsk (38%  $\text{Al}_2\text{O}_3 + \text{TiO}_2$ ; refractoriness 1,730°-1,750° C.); Okomilya (30%  $\text{Al}_2\text{O}_3 + \text{TiO}_2$ ; refractoriness 1,690°-1,710° C.); and Chasov-Yar (32%  $\text{Al}_2\text{O}_3 + \text{TiO}_2$ ; refractoriness 1,710°-1,730° C.). The grog used was of three types: made from ball clay; from moist pressed briquettes fired at 1,320°-1,350° C.; and of the type used in casting-pit refractories. Grading experiments were carried out. For a coarse grading 5-10 mm. grog was mixed in various proportions with grog less than 2 mm. in size: the maximum bulk density (1.74) was attained using coarse: fine ratios of either 50:50 or 40:60. For the fine grading, using 1-4 mm. and less than 0.5 mm. materials, the maximum bulk density (1.80) was attained with a coarse and fine ratio of 40:60. Additional grading tests gave the following results:

Maximum grain size of grog (mm)	Grading to give maximum density. (%)						
	I.	II.	III.	IV.	V.	VI.	VII.
5-10	40*	50	—	—	—	45	—
2.5	—	—	45	—	—	—	—
1.4	—	—	—	40	—	—	—
1.3	—	—	—	—	—	—	—
<2	50*	50	—	—	45	—	50
1.0-5	—	—	—	—	—	—	—
<0.5	—	—	55	60	55	55	—
<0.25	—	—	—	—	—	—	50
Bulk density (g/c.c.)	1.74	1.74	1.85	1.80	1.80	1.82	1.82

*over*

\*Error in the original

The three bond clays in the proportions 5%, 7% and 10%, were then mixed with grog made by wet pressing Lubitinsk clay; the grog, which had a water absorption of 3.4%, had a grading of 40% medium (1-4 mm.) and 60% fine (<0.5 mm.). Test-pieces were made using a moisture content of 5.6% and the dry strength, shrinkage, porosity, bulk density and fired strength were determined. Grog bricks bonded with 10% Chasov-Yar clay had a bulk density of 2.14, porosity 19.8%, and a crushing strength 810 kg/sq. cm. Additional tests were made with this bond clay and other types and gradings of grog, also with the Lubitinsk bond clay and various grog gradings. Some of the results obtained using the Chasov-Yar bond

clay with different types of grog are shown graphically. There was a progressive increase in crushing strength and bulk density, and an accompanying decrease in porosity, as briquette grog was replaced by grog from casting-pit refractories, and as this in turn was replaced by ball-clay grog. On the basis of this laboratory work, full-sized bricks were made industrially. It was found that a making pressure of 200-230 kg/sq. cm. was insufficient for bricks of high grog content; a Lloyd press was therefore used. These bricks were fired at 1,410-1,440°C. The fired bricks had a bulk density of 2.08-2.16, crushing strength 198-329 kg/sq. cm., porosity 18.3-22.4% and after-contraction of 0.1-0.3%. Both squares and arch bricks were made, the proportion of first quality products being 92% and 72% in the two cases; the kiln loss was 0.9% for the squares and 3.3% for the arch bricks. A flow-sheet is given for the production of highly grogged firebricks. The clay passes through a rotary drier, disintegrator and rotary screen; the grog passes through a jaw crusher, ball mill and rotary screen; after the grog and clays have been proportioned, they are mixed in a tempering mill, and the bricks are then made in a Lloyd press and are fired. (6 figs., 10 tables.)

C

11 - 3 - 49

Processes and Properties Index

Manufacture and tests of two-layer cups for pouring steel. V. M. Stranskaya and V. V. Radin. Ogranichiv. 13 [10] 407-74 (1948). The body of the cup was made of 40% Chasov Yar clay and 60% grog, and the plugs of 30 and 50%. The protective graphite layer was made of Chasov Yar clay 40, grog 30, and graphite 30%. The graphite mix was somewhat more moist than that of the body. The cups and plugs were formed by hand packing in metal forms. The protective layer was 15 mm. thick; for special steels, such as Mn, it was 40 to 45 mm. Tests proved satisfactory with killed and rimming steels; for Mn steels, additional tests will be required. B.Z.K.

## ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

ECONOMIC CLASSIFICATION

SANDUSKY, OHIO

EDITION 1970, MAY 1970

EDITION 1970, MAY 1970

EDITION 1970, MAY 1970

ECONOMIC CLASSIFICATION

SANDUSKY, OHIO

EDITION 1970, MAY 1970

S

*Refractory Materials*

*Simplified Method of Determining the Resistance of Refractory Materials to Slag Attack. V. M. Strelets and V. V. Radin. (Zavodskaya Laboratoriya, 1959), No. 1, 108-109.*  
[In Russian]. A method is described for determining the resistance to slag attack of various refractory materials. No special apparatus is required. The basis of the method is the measurement of the decrease in volume of the specimen of standard dimensions after immersion in slag. The specimen is 02 mm. in dia. The temperature is raised to 1450° C. at an average rate of 11° C./min. in a Kryptol furnace.—S. K.

STRELETS, V. M.

PA 160T34

USSR/Engineering - Ceramics, Proper-

ties or

May 50

Efficiency, Industrial

"Accelerated Method for Determining Forming Properties of Chamotte Materials," V. M. Strelets,  
V. V. Radin, Borovich "Krasnyy Keramik" Combine,  
 $\frac{4}{2}$  pp

"Ogneupory" No 5

Describes new instrument constructed by authors  
for determining density of ceramic mass. Method  
based on measuring depth reached by conical  
penetrator forced into sample under certain load. In-  
strument, of very simple design, registers penetra-  
tion depth with accuracy up to 0.5 mm.

160T34

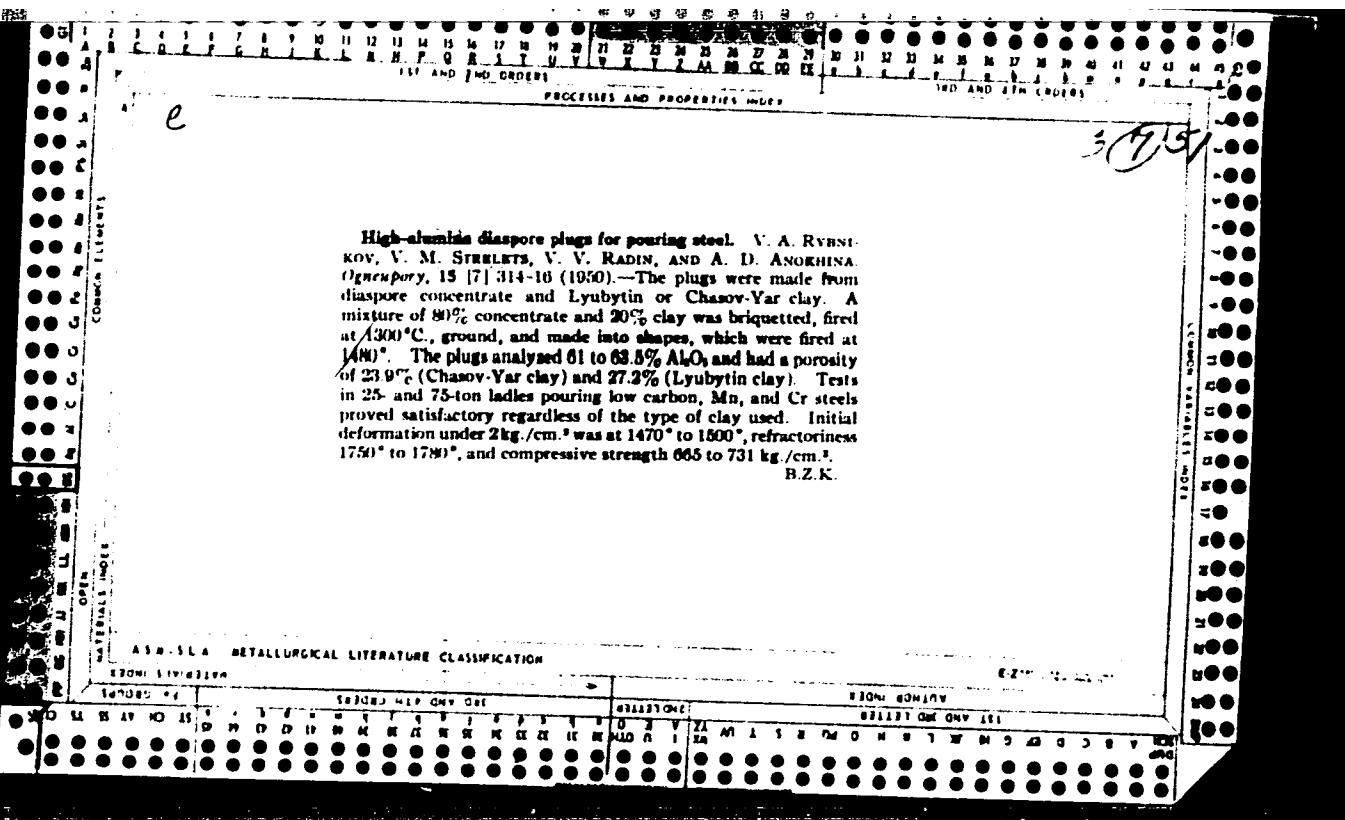
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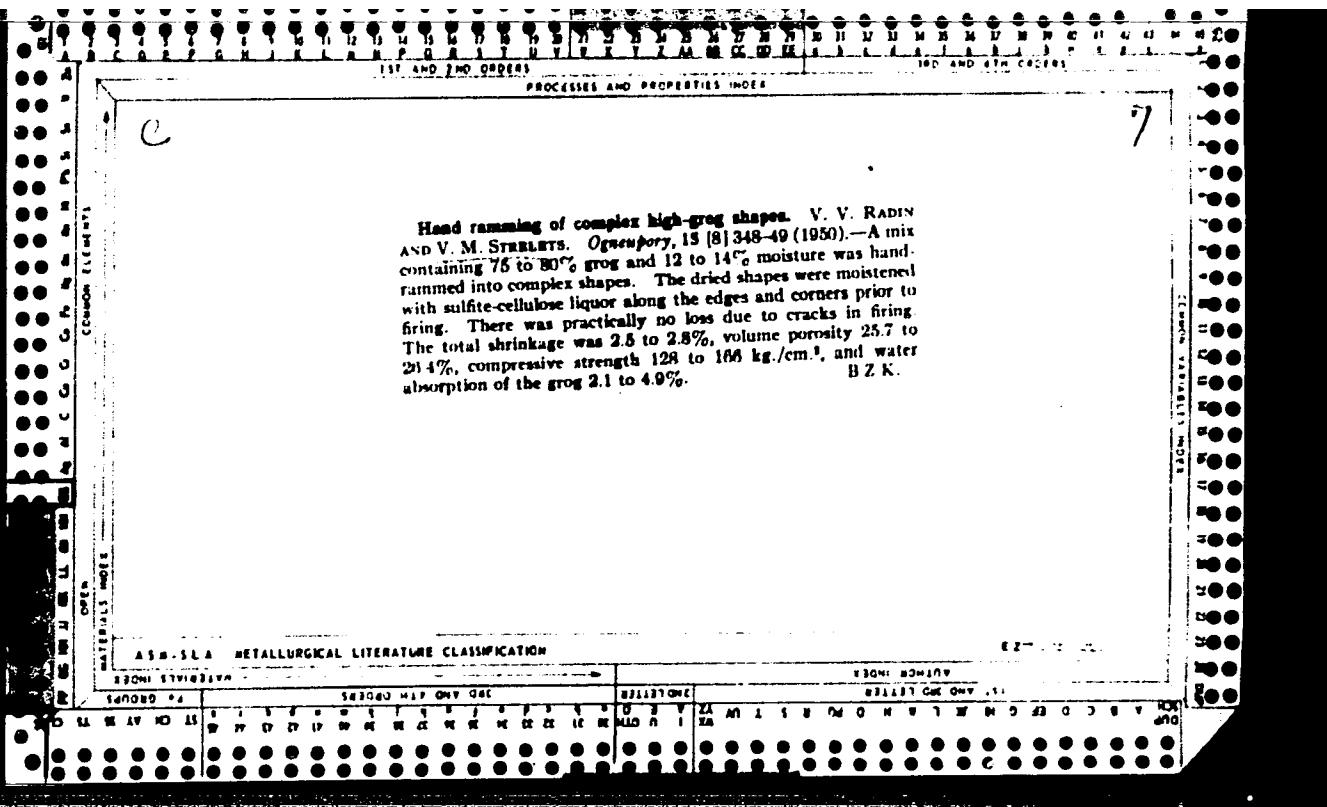
CIA-RDP86-00513R001653510010-9

Reducing spoilage of fireclay shapes at the Kraanyi  
Keramik Works. V. M. Strelts (Red Ceramic Works,  
Borovichi). Ogneupory 15, 147-53(1950). B. Z. K.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653510010-9"





## PROCESSES AND PROPERTIES INDEX

Production of high-grog ladle brick. V. M. STRELTS AND V. V. RADIN. Ogneupory, 15 [10] 435-41 (1950). The details of production are given of semidry-pressed ladle brick from a mix of 70% grog and 30% clay. The press in use was designed by the Leningrad Institute of Refractories for a maximum of 420 kg/cm<sup>2</sup>, the pressure range employed was 300 to 400 kg/cm<sup>2</sup>. The grog size was 3 to 4 mm, 5 to 8%, and <0.04 mm 36 to 45%. The clay was plastic and sintered completely at 1200°C. Other properties were not investigated although the clay is of local origin (Novovichi). The brick were fired at 1380° and held for 4 hr., for the interval 150° to 200°, the rate was 4° to 5°/hr. The scrap in firing was 3.6%, service life 13.3 heats in a 75-ton ladle, apparent porosity 15.8 to 19.9%, bulk density 2.10 to 2.21, and crushing strength 146 to 297 kg./cm.<sup>2</sup>. The brick met all standards and was superior to the plastic pressed product in dimensional accuracy and shape. B.Z.K.

## ASM-ILIA METALLURGICAL LITERATURE CLASSIFICATION

ECONOMIC

SOCIETY MAT. ONLY USE

MANUFACTURE

TECHN. ECONOMY  
SOCIETY ON USE

TRALIN, V. M.

FA 159T17

USSR/Engineering - Ceramic Materials      Jan 50  
Ceramics

"Simplified Method for Determining the Resistance  
to Slag Penetration of Ceramic Materials," V. M.  
Strelets, V. V. Radin, Borovichi "Krasnyy Keramik"  
Combine, 2 pp

"Zavod Lab" Vol XVI, No 1

Suggests using electric kryptol furnace, usually  
available in every plant laboratory. Evaluates  
test results by measuring decrease in volume of a  
sample as to its initial volume. Method is suf-  
ficiently accurate.

159T17

STRELETS, V. M.

LC

183T58

USSR/Engineering - Refractories, Tech-

nology

Jun 51

"Manufacture of High-Alumina Products on a Base  
of Diaspore Concentrate," V. M. Strelets, Cand  
Tech Sci V. V. Radin, Engr Borovichchi Combine  
"Krasnyy Keramik" (Red Ceramist)

"Ogneupory" No 6, pp 243-248

Describes exptl work to develop tech process for  
making checker bricks for regenerators of open-  
hearth furnaces from multi-chamotte materials with  
diaspore conc added. Method also developed for  
manufg high-alumina products with 50% aluminium

LC

183T58

USSR/Engineering - Refractories, Tech-  
nology (Contd) Jun 51

oxide by stiffmud process. Lab expts proved  
possibility of manufg products with high physi-  
comch properties using dry-press molding method.

LC

183T58

c. 4.

19

High alumina shapes with diaspore concentrate V. M. Strelts and V. V. Radin, *Ogorskoye* 16, 213 & 1951. Semidry-pressed checker brick suitable for regenerators were made from a mix of clay 63.2, grog 27.1, and diaspore concentrate 9.7% fired at 1380°. Crushing strength was 316 kg./sq. cm., bulk wt. 2.13 g./cc., apparent porosity 20.2%; refractoriness cones 173-5, initial deformation under 2 kg./sq. cm. at 1410°,  $\text{Al}_2\text{O}_3 + \text{TiO}_2$  42%. Shapes containing 50%  $\text{Al}_2\text{O}_3 + \text{TiO}_2$  were made on lab. and semicom. scales by plastic molding. The semicom. mix contained clay 41.5-45.0, diaspore concentrate 11.0-12.3, and diaspore grog 42.7-44.5%. The grog was made by calcining 70% concentrate and 30% clay at 1320° and grinding to 80% finer than 0.54 mm. Shapes were fired at 1420° and held for 26 hrs. Crushing strength was 308-477 kg./sq. cm., apparent porosity 21-23.8%, refractoriness above 1750°, and  $\text{Al}_2\text{O}_3 + \text{TiO}_2$  50-53.51-48%. Shapes having 50.55%  $\text{Al}_2\text{O}_3 + \text{TiO}_2$  were also made on a lab. scale by semidry-pressing by using mixes of (1) 60% diaspore grog and 40% clay and (2) 30% diaspore grog (all coarser than 0.54 mm.) and 70% fine-grain bond (over 80% finer than 0.088 mm.) obtained by grinding 70% concentrate with 30% clay. The grog in mix (1) was calcined at 1350 and 1500° and water absorption was 10.2 and 11.8% resp.; grog in mix (2) was calcined at 1320 and 1500° and water absorption was 10.1 and 13.0%, resp. Shapes were pressed under 200 and 400 kg./sq. cm. and fired at 1450-1500° and at 1420-1440° (held for 18 hrs. and over). Shapes made from mix (2) with grog calcined at 1320° and pressure of 200 kg./sq. cm. and fired at 1430° (held for 20 hrs.) had the following characteristics:  $\text{Al}_2\text{O}_3$  55.21; total shrinkage 2.2%; bulk wt. 2.12 g./cc., apparent porosity 26.1%; crushing strength 741 kg./sq. cm., and initial softening at 1400°. B. Z. Kamich 6

STRELETS, V.M.; KAMINSKIY, V.K.; BELOBRAGIN, N.Z.

The production of semiacid shaped refractories for coke ovens by  
semidry pressing on friction presses. Ogneupory 21 no.4:152-157  
'56. (MLRA 9:8)

1. Khar'kovskiy institut ogneuporov (for Strelets); 2. Krasno-  
gorovskiy ogneupornyy zavod imeni Lenina (for Kaminskiy, Belobragin).  
(Refractory materials)

5782272, V.P.  
STRELETS, V.M.; KARAULOV, A.G.; ZOZULYA, I.S.

Refractory nozzles for continuous pouring of killed carbon steel.  
Orneupory 22 no.11:483-492 '57. (MIRA 11:1)

1. Khar'kovskiy institut ogneuporov (for Strelets, Karaulov).
2. Konstantinovskiy zavod ogneupornykh izdeliy (for Zozulya).  
(Refractory materials) (Smelting furnaces)

*STRELETZ, V. M.*

27(1) 08/1978  
PAGE 1 SOVIET INFORMATION  
Soviet design documents, Soviet Army (Armored) in Europe  
Ballistic Collection of Articles) Moscow, Naukogradost, 1970.  
Some will be printed. 1,000 copies planned.  
Mr. L. I. Gavrilov, Agentur M. of Publishing House L. P. Eliseev's Sov. Sci. Ed.  
L. I. Shchepetov,  
L. I. Shesterov.

27(1) This book is intended for engineers and technicians working in Soviet  
military.

Opposite: The book consists of 20 articles on the development and use of re-  
actives in the Soviet metallurgical industry. D. I. Gavrilov, in the first  
chapter, presents the programs for development and research projects for the  
period 1959-1965. In addition, he describes the development of reactive plates in the eastern  
part of the USSR. In general, the articles deal with recent developments in  
the use of reactives for blast and special metals furnaces and for  
various and mobile refineries for blast and special metals furnaces and in various  
plants of tubes and special equipment and in continuous casters and in various  
sections of foundries. A. S. Kurnakov discusses the technology of manufacture  
of various reactive structures which frequently replace basic brick and  
ceramic, some rare that good results were obtained with  
them.

245

Opposite: Soviet Metal and Glass Institute of magnetite and chrome  
refractories. The application of new reactive technologies in  
the production of various blasting media and ceramic materials  
is described. The use of reactive materials in the production of refractory  
structures in foundry furnaces are said to have been developed in the  
Soviet Union by the Institute of Metallurgy and Reacting Furnaces. O. M. Margalit and O.  
G. Krasnoshchekov describe the development of reactive  
elements in the use of "reactive" elements to determine the properties of concretes  
of various refractories by the Institute of Refractories by the Institute of Light-weight  
metals, and L. A. Bagayev and V. D. Shchegolev cover the use of light-weight  
refractory bricks in blast furnaces. The last paper written by A. N. Shchegolev  
describes the use of reactive materials and ceramic tiles of refractory  
bricks, refractory bricks, lime bricks and bricks with high alumina  
contents. Graphs, diagrams, and photographs accompany the papers. Pur-  
chase information and Table of Contents.

Opposite: Soviet Metal and Glass Institute (cont.) 08/1978  
O. M. Margalit, L. A. Bagayev and I. B. Zemlyanik, Refractory Institute  
of Light-weight Materials, [Design or Glass Foundry]  
There are 15 references, 8 of which are Soviet, and 5 English] 195  
V. D. Shchegolev, L. A. Bagayev, Plastized Fire Clay and Lime  
Brick, [8 Soviet references] 20  
A. N. Shchegolev, L. A. Bagayev, Improving the Technology of Producing Lime Br-  
ick, [8 Soviet references] 21  
A. N. Shchegolev, L. A. Bagayev, Use of Light-weight Lime Brick in  
Production [5 Soviet references] 22  
B. N. Kostylev, Use of Refractories in Glass Works Plants 23  
V. N. Kostylev, A.P. Sipov, Use of Refractories, Blasts, and Reactive Bricks  
in Glass Plants [1 Soviet reference] 24  
A. N. Shchegolev, Chemistry of Ores and  
minerals 25  
and 26  
27(1)

SOV/131-39-12-6/15

15(2)

AUTHORS:

Kuz'mina, L. I., Pizak, N. V., Strelets, V. N.

TITLE:

Application and Variation of Phase Composition of the Stopper  
Bushing of Casting Lalles in Continuous Steel Casting

PERIODICAL:

Ogneupory, 1955, N° 12, pp 560-566 (USSR)

ABSTRACT:

In the "Kryvoriz'kormevo" Works stopper bushings were tested consisting of quartz-kaolin of the Prosvyaz Kombinat, of fire clay of the Berevichi Kombinat of Refractories, of fire clay-kaolin of the UNIIO test plant and those with a high alumina content of the Podol'sk Works of Refractories. The stopper bushings consisting of quartz-kaolin were produced by means of the plastic and all remaining ones by means of the semi-dry method. The physical and chemical properties of stopper bushings are listed in table 1, their wear may be seen from table 2. In figures 1 and 2 the fire clay-kaolin- and the quartz-kaolin bushings are shown according to their use. The chemical composition of stopper bushings prior and after their application is indicated in table 3. The microstructure of quartz-kaolin bushings and those with a high alumina content is given in figures 3 and 4 according to their application. In conclusion the authors stress that the wear of stopper bushings is brought

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SOV/131-59-12-6/15  
Application and Variation of Phase Composition of the Stopper Bushing of  
Casting Ladles in Continuous Steel Casting

about mainly by the action of the slag and of the molten metal. The greatest stability is found with bushings of high alumina content. It is considered interesting to investigate the possibility of prolonging life of fire clay lining of the casting ladle and stoppers by the addition of grog. The possibility of using covers for casting ladles should be investigated in order to be able to cast with a minimum slag cover. There are 4 figures, 3 tables, and 9 references, 8 of which are Soviet.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov  
(Ukrainian Scientific Research Institute of Refractories)

Card 2/2

15(2)

AUTHORS:

Strelets, V. M., Pitak, N. V.S/131/60/000/01/009/017  
B015/B001

TITLE:

Experiments on the Use of Sleeve Bricks for Continuous  
Steel Casting

PERIODICAL:

Ogneupory, 1960, Nr 1, pp 30 - 32 (USSR)

ABSTRACT:

In this paper, the authors describe experiments with sleeve bricks with different sleeves (Fig 1). N. P. Mayorov, N. S. Agazor'yants, A. V. Khribkov, A. M. Makushin, L.B.Shenderov, V. G. Barsukov, and Z. D. Abuladze participated in the experiments. Table 1 shows the chemical composition of the sleeve bricks and the sleeves. The casting conditions of steel and the wear of the sleeve bricks in a plant for continuous steel casting are given in table 2. Figure 2 shows a biceramic sleeve brick with a layer of high alumina content after use. In conclusion, the authors mention that unburnt sleeve bricks with a magnesite layer show a higher wear resistance than those with a clay-graphite layer. Sleeves of highly refractory materials showed the highest durability. There are 2 figures and 2 tables.

Card 1/2

~~65002~~ 69592

S/131/60/000/04/05/015  
B015/B008

18.4000 15.2200

AUTHORS: Strelets, V.M., Pitak, N.V.

TITLE: Increasing the Stability of Stoppers of 140 t Steel-casting Ladles

PERIODICAL: Ogneupory, 1960, No. 4, pp. 171-175

TEXT: In the paper under review the authors describe the function of the chamotte pipes SP-8-2, SP-8-4 and the chamotte stoppers SP-13-1 of the Zaporozhskiy ogneupornyy zavod (Zaporozh'ye Works for Refractories), the quartz-kaolin pipes SP-8 of the Prosvanovskiy kaolinovyy kombinat (Prosvanaya Kaolin Kombinat), magnesite sleeve bricks of the Chasov-Yarskiy kombinat ogneupornykh izdeliy (Chasov-Yar Kombinat for Refractories) and sleeve bricks of the Konstantinovskiy ogneupornyy zavod "Krasnyy Oktyabr'" (Konstantinovka Works for Refractories "Krasnyy Oktyabr'"). I.I. Druzhinin, Yu.Z. Babaskin, and A.N. Slin'ko participated in the experiments. The physicochemical properties of the materials used are mentioned in table 1. The pipes are corroded most by slag (Fig. 1). Examples of the wear of the pipe seams and the sleeve bricks are shown in Figs. 2 and 3 and the varied insulation of the stopper rods in Fig. 4. Mortar of varied composition was tested in the experiments (Table 2) in order to ✓

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~~65992 69592~~

Increasing the Stability of Stoppers of  
140 t Steel-casting Ladles

S/131/60/000/04/05/015  
B015/B008

eliminate the corrosion of the pipe seams. The authors in conclusion underline that the amount of slag in the ladle constitutes one of the main factors for the corrosion of the stopper pipes. The tearing-off of the spherical part of the stopper, caused by the formation of a crust between sleeve brick and stopper, can be eliminated by a graphite covering. The corrosion of the pipe seams may be reduced by using quality mortar for the insulation of the stoppers. A highly aluminous coating of the stopper pipes eliminates their wear. There are 4 figures, 2 tables, and 9 references, 8 of which are Soviet.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian  
Scientific Research Institute of Refractories)

Card 2/2

Compound Pouring Ladle Nozzle Lining for the  
Casting of Rimmed Steel in Installations for  
Continuous Steel Casting

S/131/60/000/008/001/003  
B021/B058

Yar clay 41 (Ch1) were used for the production of highly aluminous inserts. Zirconium inserts were produced from finely ground zirconium with a  $ZrO_2$  content of 69%. Chamotte pouring ladle nozzle linings were produced at the Experimental Plant of the Ukrainian Scientific Research Institute of Refractories from a mass containing 40% chamotte from Chasov Yar clay 41 (Ch1), 40% Chasov Yar clay 41(Ch1) and 20% foundry coke. The highly aluminous and magnesite inserts, as well as chamotte pouring ladle nozzle linings were pressed in the "Tagilets" friction press. A press mold (Fig. 1) was used at the Chasov Yar Kombinat. A total view of the two parts of the compound pouring ladle nozzle lining is shown in Fig. 2. The inserts and linings were fired in periodic furnaces. The firing curves are shown in Fig. 3 and the properties of the fired products are tabulated. The compound linings were tested at the Stalinskiy metallurgicheskiy zavod (Stalino Metallurgical Plant) and the zavod "Krasnoye Sormovo" ("Krasnoye Sormovo" Plant) during the casting of rimmed steel. The experiments were conducted by collaborators of the Ukrainian Scientific Research Institute of Refractories, the Ukrniimetallov (Ukrainskiy nauchno-issledovatel'skiy

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Compound Pouring Ladle Nozzle Lining for the  
Casting of Rimmed Steel in Installations for  
Continuous Steel Casting

S/131/60/000/008/001/003  
B021/B058

institut metallov - Ukrainian Scientific Research Institute of Metals),  
the TsNIIChM (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy  
metallurgii - Central Scientific Research Institute of Ferrous Metallurgy),  
the Stalino Metallurgical Plant and the "Krasnoye Sormovo" Plant. Fig. 4  
shows highly aluminous inserts after their use in 50 t pouring ladles.  
They were tested at the "Krasnoye Sormovo" Plant with apertures of 30 mm  
diameter. The aperture of the insert was washed out by 1-2 mm in diameter  
when casting rimmed steel of type 3kp (3kp). The wear amounts to 4-6 mm  
when casting weld steel of type CB 08A (Sv08A), which is explained by its ✓  
higher content of iron oxides. The authors state in conclusion that the  
production technology of compound nozzle linings was elaborated for con-  
tinuous rimmed-steel casting. The compound lining consists of a porous  
chamotte pouring ladle nozzle as a carrying part, and a highly aluminous  
magnesite- or zirconium insert as working part. The highly aluminous  
inserts showed the best wear resistance during tests. There are 4 figures,  
1 table, and 5 references: 1 Soviet, 2 British, and 2 US.

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Compound Pouring Ladle Nozzle Lining for the  
Casting of Rimmed Steel in Installations for  
Continuous Steel Casting

S/131/60/000/008/001/003  
B021/B058

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov  
(Ukrainian Scientific Research Institute of Refractories) ✓

Card 4/4

STR&LETS, V.M.; PITAK, N.V.

Service characteristics of stoppers during the continuous pouring of  
steel. Ogneupory 25 no.2:64-69 '60. (MIRA 13:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.  
(Refractory materials) (Steel--Metallurgy)

STRELETS, V. M., PITAK, N. V.

Increasing the strength of stoppers of 140-ton steel-pouring  
ladles. Ogneupory 25 no.4:171-175 '60. (MIREA 13:8)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.  
(Steelworks--Equipment and supplies)  
(Refractory materials)

KUKOLOV, G.V.; STRELETS, V.M.; PITAK, N.V.; AMERIKOVA, T.A.

Sectional nozzles for the continuous pouring boiling steel. Ogneupory  
25 no.8:352-356 '60. (MIRA 13:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.  
(Steel---Metallurgy)

2

*Strelets, V.M.*

S/137/62/000/001/014/237  
A060/A101

AUTHORS: Glazkov, P. G., Sladkoshteyev, V. T., Telesov, S. A., Ofengenden, A. M., Strelets, V. M., Murzov, K. P.

TITLE: Study of the operation of a multi-jet casting unit for continuous pouring of steel

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 62, abstract 1V392 ("Sb. tr. Ukr. n.-i. in-t metallov", 1961, no. 7, 133-142)

TEXT: On the basis of temperature measurements of steel in the furnace, in the ladle of 140-ton capacity, and also in a 2-stopper intermediate casting unit, and in the jets from the ladle and the casting unit, the heat losses of molten steel in the process of tapping and founding were determined. It was established that the first 18 - 20 tons of steel proceeding from the ladle and the casting unit have a relatively low temperature, which then increases and remains stable practically to the end of the founding. Taking into account that the low temperature of the first portions of the metal is the result of heat losses expended upon the heating up of the lining of the ladle and the casting unit and leads to a rapid obstruction of the channels of the steel-pouring

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2

Study of the operation of a multi-jet ...

S/137/62/c00/001/014/237  
A060/A101

nozzles, it is recommended to heat up the working layer of the lining up to 1,300 - 1,400°C. It is indicated that the raising of the lining temperature of the casting-unit lining between the limits 1,000 - 1,350°C reduces the steel temperature drop by 8 - 10°C per 100°C lining temperature increase. It is pointed out that the total obstruction of the nozzle channels is eliminated at the temperature of molten rimmed and killed (medium-carbon) steel in the furnace before tapping and in the casting unit (after pouring 3-6 tons), equal to 1,625 - 1,650 and 1,530 - 1,550°C respectively. Testing was carried out upon the composite nozzles of fireclay with zirconium, high-alumina, and magnesite bushings, and also upon biceramic ones with argillo-graphite and high-alumina working layer. It was established that in the course of pouring rimmed steel the lowest channel erosion and the most stable metal flow is ensured by high-alumina and zirconium bushings. In pouring killed steel it was established that the method of reducing the steel with Al has an effect upon the nature of steel action upon the nozzle material. In pouring steel reduced with Al during tapping the heat, the nozzle channel becomes stopped up in the course of pouring and requires repeated burning out with O<sub>2</sub>. However, also in that case the best result is obtained with a zirconium bushing. In reducing killed steel with Al the most stable flow of metal in the jet from the casting unit was demonstrated ✓

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Study of the operation of a multi-jet ...

S/137/62/CCO/001/014/237  
KCSU/AIC

by zirconium and high-alumina bushings. Computational formulas are given for determining the optimal diameter of the nozzle in the casting unit, which ensures a given size of rimmed or killed steel.

I. Granat

[Abstracter's note: Complete translation]

Card 3/3

S/131/62/000/006/002/002  
B117/B101

AUTHORS:

Strelets, V. M., Pitak, N. V., Kulik, A. I., Logachev, M. S.

TITLE:

Laboratory investigations of the technology of zircon products

PERIODICAL: Ogneupory, no. 6, 1962, 283-288

TEXT: The influence of the following factors on the physico-chemical properties of zircon products was studied: grain composition, molding pressure, burning temperature, admixtures of clay, raw zircon concentrate (УМТУ 2002-47 (TsMTU 2002-47)), and raw non-ferrous zircon (УМТУ 4469-54 (TsMTU 4469-54)), the object being to establish optimum masses and working standards for the production of proportioning ladles for use in continuous steel-casting foundries. The lowest apparent porosity and the highest weight by volume were determined after drying (at 120°C) of samples made up of 1.5-0.5 mm grains (50%) and of <0.088 mm grains (50%), and after burning (at 1550°C for 2 hrs) of samples made up of 1.5-0.5 mm grains (30%) and of <0.088 mm grains (70%). A pressure of 500 kg/cm<sup>2</sup> was found sufficient for the production of dosing cups, as an increase in

Card 1/2

GLAZKOV, P.G., inzh.; GRIGOR'YEV, F.N., inzh.; MURZOV, K.P., inzh.;  
SLAVYONOV, V.T., inzh.; Prinimali uchastiye: MALAYHA, A.V.;  
FOKRASS, L.M.; DRUZHININ, I.I.; OSIPOV, V.G.; KONFRATYUK, A.M.;  
POLYAN, V. I.V.; GOUDIYENKO, M.S.; PAVLOV, M.T.; KOPYTIN, A.V.;  
PARASHCHENKO, R.A.; POTANIN, R.V.; AKHTYRSKIY, V.I.; BRUK, S.M.;  
YEVTUSHENKO, V.V.; LEYTES, A.V.; STRFLETS, V.M.

Continuous casting of 140-ton steel heats with four-channel  
equipment. Stal' 22 no. 6:501-50'. Je '67. (MIRA 16:7)

STRELETS, V.M.; PITAK, N.V.; KULIK, A.I.; LOGACHEV, M.S.; Prinimala  
uchastiye VYSOTSKAYA-KVITKO, T.M.

Service of zircon nozzles in the continuous casting of steel.  
Ogneupory 28 no.4:163-165 '63. (MIRA 16:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov  
(for Strelets, Pitak). 2. Chasov-Yarskiy kombinat ogneupornych  
izdeliy (for Kulik, Logachev).

STRELETS, Vladimir Trofimovich

STRELETS, Vladimir Trofimovich; DUBROVSKIY, V.A., redaktor; PETRUSHKO,  
Yel.I.Y. tehnicheskij redaktor

[D-15 wind motor] Vetrodvigatel' D-15. Moskva, Gos. izd-vo selkhoz  
lit-ry, 1955. 83 p.  
(Wind mills)

AGEYEV, P.Ya.; ALABYSHEV, A.F.; BAYMAKOV, Yu.V.; BELYAYEV, A.I.; BATASHEV, K.P.;  
BUGAREV, L.A.; VASIL'YEV, Z.V.; GUPALO, I.P.; GUS'KOV, V.M.; ZHURIN, A.I.;  
VETYUKOV, M.M.; KOSTYUKOV, A.A.; LOZHKN, L.N.; OL'KHOV, N.P.;  
OSIPOVA, T.V.; FERTSEV, I.I.; RUMYANTSEV, M.V.; STRELETS, Ye.L.;  
FIRSAMOVA, L.A.; CHUPRAKOV, V.Ya.

Georgii Alekseevich Abramov. TSvet.met. 27 no.2:72-73 Mr-Ap '54 (MLRA 10:10)  
(Abramov, Georgii Alekseevich, 1906-1953)

STRELETS, YU.

Calculating Machines

Efficient utilization of adding machines, Den i kred, 11, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress May 1952 UNCLASSIFIED

STRELTSKA<sup>1</sup>, L. V.

STRELTSKA, L. V. - "Ireland (Irish Republic). Economic Geography Features." Sub 11 Nov 52, Inst of Geography, Acad Sci USSR. (Dissertation for the Degree of Candidate in Geographical Sciences).

SO: Vechernaya Moskva January-December 1952

STRELETSKAYA, L. N.

STRELETSKAYA, L.N.

[Republic of Ireland; characteristics of its economic geography]  
Irlandskaia respublika; ekonomiko-geograficheskaiia kharakteristika.  
Moskva, Gos. izd-vo geogr. lit-ry, 1953. 260 p. (MLRA 6:12)

1. Akademiya nauk SSSR, Institut geografii.  
(Ireland)

15-57-10-14242

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,  
p 140 (USSR)

AUTHOR: Streletskaia, L. N.

TITLE: The Coal Industry of Pennsylvania (Ugol'naya promy-  
shlennost' Pensil'vani)

PERIODICAL: Tr. In-ta geogr. AN SSSR, 1956, Nr 70, pp 149-168

ABSTRACT: The coal reserves of the U. S. A. are calculated to be  
2400 billion tons (1950). Production is illustrated  
by the data in the Table (see Table). The decreased  
production of coal reflects principally the decrease in  
anthracite production in the country. The chief produc-  
tion of high-quality coking coals comes from the Pitts-  
burg series, and the main center of coal production  
(85 percent) is the Pittsburgh region. The principal  
metallurgical plants are located there. The center of  
coal production for the entire Appalachian basin is  
moving gradually to the south (a shift of 219 km for  
Card 1/3

15-57-10-14242

The Coal Industry of Pennsylvania

the period from 1869 to 1933). This shift is not to be explained by exhaustion of the deposits but by the rapacious methods of exploitation (over 40 percent loss of the resources). Production has been chiefly by underground methods. Only in recent years have coal-stripping methods appeared. The output from the Pennsylvanian mines is lower than in other states of the U. S. A. Beneficiation preserves only one-fifth of the extracted coal. The value of the by-product industry in Pennsylvania is lower than in other states. Along with new coking plants, a large number of old plants are still maintained, without recovery of the secondary products. The largest anthracite deposits in the world are found in the eastern part of this region (reserves of eight billion tons in an area of 1,250 km<sup>2</sup>). They occur in four independent basins (northern, middle-eastern, middle western, and southern). The largest amount of anthracite is taken from the northern basin. The anthracite industry in the U. S. A. is experiencing a crisis because of the decreased demand for anthracite. Production has been sharply curtailed, and 89 percent of the anthracite is mined for export. The

Card 2/3

The Coal Industry of Pennsylvania

15-57-10-14242

mechanized methods of extraction and of transport have become  
obsolete.

Year	Production	
	Tons (in millions)	ratio to 1918, percent
1918	612	100
1929	550	90
1950	505	82
1953	443	72
1954	378	62
1955	449	73

Card 3/3

Ye. G. Martynov

STRELETSKAYA, Larisa Nikolayevna; ZHIBITSKAYA, E.D., otv. red.;  
SHAPOSHNIKOV, A.D., red.; SHAPOVALOVA, N.S., mledshiy red.;  
GOLITSYN, A.V., red. kart; KOSHELEVA, S.M., tekhn. red.

[Belgium; economic and geographical characteristics] Bel'giia;  
ekonomiko-geograficheskaiia kharakteristika. Moskva, Geograf-  
giz, 1962, 237 p.  
(Belgium--Economic geography)

[part 1 of 2] p.M.; SHUL'YAN, N.Kh., retsentrant; STREL'TSEVA, L.P.,  
inzh., red.

[Linkages; kinematic study and synthesis] Rychashhye me-  
khanizmy; kinematicheskoe issledovanie i sintez. Moskva,  
Mashinostroenie, 1964. 177 p. (MIRA 17:8)

RUKIMYY, A.A.; ALEKSANDROV, M.P., doktor tekhn. nauk, prof.,  
retrenzent; STRELTSKAYA, L.I., inzh., red.

[Throwing machines] Metatel'nye mashiny. Moskva, Mashinostroenie, 1964. 195 p.  
(MIRA 17:10)

STRELETSKIY, D. N. Cand Tech Sci -- (diss) " Study of the basic indicators of the net cost of manufacturing steel bridges." Mos, 1957. 14 pp. (Min of Higher Education USSR. Mos Motor Vehicle and Road Inst.) 120 copies.  
(KL, P-58, 106)

-35-

STRELETSKIY, D.N.; APTERMAN, I.Z.

Effectiveness of production-line finishing of details at  
metal part plants. Prom.stroi. 39 no.8:45-48 '61. (MIRA 14:9)  
(Rolling (Metalwork))

BOGOSLOVSKIY, A.M., inzh.; BORISOV, A.V., inzh.; STRELTSKIY, D.N.,  
kand.tekhn.nauk

Analysis of labor required in the mechanized assembly of  
a "250" mill. Mont. i spets. rab. v stroi. 24 no.7:10-12  
(MIRA 15:6)  
J1 '62.

1. Normativno-issledovatel'skaya stantsiya No.5 i Nauchno-  
issledovatel'skiy institut stroitel'noy promyshlennosti Ministerstva  
stroitel'stva RSFSR.  
(Cherepovets--Rolling mills)

STRELETSKIY, D.N., kand.tekhn.nauk; MALININA, N.G., inzh.

"Economics of steel elements" by IA. M. Likhtarnikov. Reviewed  
by D.N.Streletskii, N.G.Malinina. Prom. stroi. 40 [i.e. 41.]  
no.3:55-56 Mr '63. (MIRA 16:3)  
(Steel, Structural)

STRELETSKIY, N.S., doktor tekhn. nauk, prof.; STRELETSKIY, D.N.,  
kand. tekhn. nauk; TAKHTAMYSHEV, A.G., inzh., nauchn. red.;  
OSIPOVA, E.M., red.

[Materials for the course on metal elements] Materialy k  
kursu metallicheskikh konstruktsii. ~~Moskva~~, Stroizdat.  
No.4. 1964. 359 p. (MIRA 17:11)

TRANSLATION FROM: Referativnyy Zhurnal, Matematika, 1957, Nr 1,  
p. 90 (USSR)

AUTHOR: Streletskiy, E. V.

TITLE: Chains of Convergence Tests for Series with Positive Terms (Tsep' priznakov skhodimosti dlya ryadov s polozhitel'nymi chlenami)

PERIODICAL: Uch. zap. Grodzensk. ped. in-ta, 1955, Nr 1,  
pp. 67-69

ABSTRACT: A method is given for construction of a chain of convergence tests for series with positive terms, using the convergence test of Kummer and the theorem of Dini. Every subsequent test in a chain appears to be stronger than the previous one in the question of convergence of the series; that is, if the Kummer test shows that the series is convergent, the next test in the chain gives a still more positive answer. However, these statements cannot be reversed, as is demonstrated by some examples.

I. V. Matveyev.

Card 1/1

BESKIN N.M. (Moskva); KOTOK, A.A. (Grodno); STRELTSKIY, E.V. (Grodno);  
ELISH, G.M. (Baku); KAGAN, L.S. (Baku); EDULEV, Ia.I. (Ufa).

"Geometry textbook" by N.N. Nikitin, A.I. Fetisov. Reviewed by  
N.M. Beskin and others. Mat. v shkole no. 4:57-69 S-O '57.  
(Geometry) (MIRA 10:8)  
(Nikitin, N.N.) (Fetisov, A.I.)

STRELTSKIY, E.V. (Grodno)

Problems on the topic "Solution of rectangular triangles."  
Mat. v shkole no.3:94-95 My-Je '59. (MIRA 12:9)  
(Triangle)

YU. N. MCKINN, M. Sc., Candidate

Cand. Tech. Sci.

Dissertation: "Lattice Confined Systems of Bridges."

18/12/50

Military Engineering Red Banner Academy imeni V.V.Kuybyshev

SO Vecheryaya Moskva  
Sum 71

STRELETSKIY, N.N., kandidat tekhnicheskikh nauk; IL'YASEVICH, S.A., professor,  
doktor tekhnicheskikh nauk, redaktor; KOVALIKHINA, N.F., tekhnicheskiy  
redaktor

[Combined lattice construction of bridges] Reshetchatye kombinirovannye sistemy mostov. Moskva, Izd-vo dorozhno-teknicheskoi lit-ry, 1953. 219 p. [Microfilm] (MLRA 7:10)  
(Bridges, Iron and steel)

SOV/124-58-3-3386

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 3, p 117 (USSR)

AUTHORS: Lyalin, N. B., Strelets'kiy, N. N.

TITLE: Principles of Bridge Design Based on Limiting-state Considerations (Osnovy rascheta mostov po predel'nym sostoyaniyam)

PERIODICAL: Tr. Vses. n.-i. in-ta zh.-d. str.-va i proyektirovaniya, 1955, Nr 16, pp 5-85

ABSTRACT: A presentation of design principles which rely upon limiting-state considerations and constitute the basis of a project for new standards for design of railroad bridges and pipe lines. Critiques and discussion materials are presented. General definitions and characteristics of limiting states are formulated. A limiting state Nr I designates conditions when deformations appearing in a structure make its further use impossible; deformations the appearance of which creates difficulties in normal operation of a structure are designated as limiting states II and III. Classifications of loads are examined and prospects for their increase are outlined. Uniformity criteria and indices of operating conditions are investigated.

Card 1-2 Proposed computational techniques are substantiated by

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Principles of Bridge Design (cont.)

considerations of the first limiting state. At this point one should stress the conditional character of the theory on "stability-of-shape analysis" in the light of modern concepts on behavior of compressed structural members. The problem of endurance analysis, an extremely important aspect of bridge building is examined in detail. Objections are raised against the theory of methods of computing the upsetting moment of bridge structures as outlined by the authors in the section on "analysis of position stability in accordance with the first limiting state"; the selection of the center of gravity of a section under investigation as the center of moments is not justified, and the computation of the restraining moment does not tie in with general computation procedures in accordance with limiting states. It would be more appropriate if sag testing described in the section "Analysis in accordance with the second limiting state," were performed under calculated rather than under standardized loads. Prospects for development of bridge-design methods based on limiting-state considerations are discussed, and an outline of necessary investigations is presented. The authors emphasize the progressiveness of the new standards and the important economic implications connected with their adoption.

A. A. Pikovskiy

Card 2/2

Streletskii, N.

Standardization of steel construction in the USSR; report at the  
3d Conference of Scientific and Technological Workers in the Field  
of Steel Construction, held in Prague September 27-30, 1955. Tr.  
from the Russian. p. 127. INZENYRSKE STAVBY. (Ministerstvo  
stavebnictvi) Praha. Vol. 4, no. 3, Mar. 1956.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

KHLEBNIKOV, Ye.L. professor; ANDREYEV, O.V., kandidat tekhnicheskikh nauk; BEGAM, L.G., kandidat tekhnicheskikh nauk; BERG, O.Ya., kandidat tekhnicheskikh nauk; GAMAYUNOV, A.I., kandidat tekhnicheskikh nauk; DUCHINSKIY, B.N., kandidat tekhnicheskikh nauk; KAZEY, I.I., kandidat tekhnicheskikh nauk; LEZOKHIN, B.F., kandidat tekhnicheskikh nauk; LUGA, A.A., kandidat tekhnicheskikh nauk; LYALIN, N.B., kandidat tekhnicheskikh nauk; MEL'NIKOV, Yu.L., kandidat tekhnicheskikh nauk; POL'IEVKO, V.P., kandidat tekhnicheskikh nauk; PROKOPOVICH, I.G., kandidat tekhnicheskikh nauk; STRELTSKIY, N.V., kandidat tekhnicheskikh nauk; TYULENEV, Ye.A., kandidat tekhnicheskikh nauk; KHROMETS, Yu.N., kandidat tekhnicheskikh nauk; SHELESTENKO, L.P., kandidat tekhnicheskikh nauk; SHPIRO, G.S., kandidat tekhnicheskikh nauk; YAROSHENKO, V.A., kandidat tekhnicheskikh nauk; ZELEVICH, P.M., inzhener; CHEGO-DAYEV, N.N.; BOBROVA, Ye.N., tekhnicheskiy redaktor.

[Technical specifications for designing bridges and pipes for railroads of a normal gauge (TUPM-56). Effective July 1, 1957 by order of Ministry of Means of Communication and the Ministry of Transportation Construction, September 15, 1956] Tekhnicheskie usloviia proektirovaniia mostov i trub na zheleznykh dorogakh normal'noi kolei (TUPM-56). Vvedeny v kachestve vremennykh s 1 iuliusa 1957 g. prikazom Ministerstva putei soobshcheniya i Ministerstva transportnogo stroitel'stva of 15 sentiabria 1956 g. No.250/TsZ/213. Moskva, Gos.transp.zhel-dor.izd-vo, 1957. 221 p. (MLRA 10:5)

1. Russia (1923- U.S.S.R.), Ministerstvo putey soobshcheniya.  
(Railroad bridges--Design)

STRELECKII, N.

"Problem of variability of parameters of carrying capacity in structures"

Aplikace Matematiky. Praha, Czechoslovakia. Vol. 4, no. 2, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 7, July 59, Unclass

STRELETSKIY, N.N., kand.tekh.nauk

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span structures. Transp.stroi. 10 no.6:48-51 Je '60.

(MIRA 13:?)

(Reinforced concrete)  
(Bridges, Iron and steel)

STRELETSKIY, N.N., kand.tekhn.nauk

New recommendations for designing combined span structures. Transp.  
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STRELETSKIY, N.N., kand.tekhn.nauk

Performance and stability analysis of combined bridge girders.  
Trudy TSNIIS no.37:222-270 '60. (MIRA 13:12)  
(Girders--Testing) (Railroad bridges)

...STRELTSKIY, M. ..., kand.tekhn.nauk

Strength of prestressed steel beams. Itron. stroi. 39 no. 2:33-38  
'61. (MIR. 11:2)

(Steel, Structural) (Girders)

STRELICKIY, Nikolay Nikolayevich; KHAZAN, I.A., inzh., retsenzent;  
LYALIN, N.B., kand. tekhn. nauk, red.

[Steel reinforced concrete bridges] Stalezhelezobetonnye  
mosty. Moskva, Transport, 1965. 375 p. (MIRA 18:5)

I. Rukovoditel' laboratorii konstruktsiy metallicheskikh  
mostov Vsesoyuznogo nauchno-issledovatel'skogo instituta  
transportnogo stroystva (for Lyalin).

USER/Stresses

Mathematics, Applied

Dec 1946

"Contribution to the Problem of Framework Failure  
Due to Cyclic Stresses," N. S. Streletskiy, 26 pp

"Izv Ak Nauk Otd Tekh" No 12

Mathematical discussion with formulæ and 22

diagrams leading to following conclusions:

- 1) Framework will not fall if during first cycle none of the beams lost their alignment, though they did receive horizontal deformation during loading and unloading process.
- 2) Framework will fall if during first cycle even as much as one beam was put out of alignment.
- 3) Framework will not fall, but will effectively take up slack if framework was loosened in process of unloading.

14T36

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*B*

Contribution to the Problem of the Establishment of  
Safety Factors in Construction Work. (In Russian). N  
S. Siroletsky. *Bulletin of the Academy of Sciences  
of the USSR* (Section of Technical Sciences), no. 1,  
1941, p. 15-20.

Analyzes the fundamental principles involved in  
development of safety factors, and derives a gen-  
eral formula for statically defined cases.

STRELETSKIY, N.S.

On the problem of unifying methods of calculating construction  
elements. Stroi.prom.25 no.2:3-5 F'47. (MIRA 8:12)

1. Chlen-korrespondent Akademii nauk SSSR.  
(Structures, Theory of)

STRELETSKIY, N. S.

16G39

USSR/Postwar Economic Planning 4104.0500 Nov 1947  
Steel Plant 4205.0256

"Metal Constructions," N. S. Streletshtiy, Corr Mem,  
Acad Sci USSR, S. M. Tubin, Engr, 4½ pp

"Stroitel Prom" Vol XIV, No 11

Theoretically discusses planning heavy industrial enterprises. Mentions work of various scientific research institutes which have dealt with problems of heavy construction. Gives names and work of many construction engineers and enterprises. General-view picture, 4½ x 15½, shows fine sheet-steel mill of "Zaporozhstal".

LC

16G39

SPRINT 214 Nikolai Stanislavovich, 100-44.

Steel constructions; textbook Moskva, Gos. izd-vo stroit. lit-ry, 1948 598 p. m . .  
(50-15752)

TH1611.275

STRELETSKIY, N. S. PROF

PA 32/49T39

USSR/Engineering  
Construction Industry  
Building Materials

Nov/Dec 48

"Chief Trends in the Development of the Soviet Constructors' School in the Field of Structural Design," Prof N. S. Streletsakiy, Corr Mem, Acad Sci USSR, Pres, Soc of Builders, 4 pp

"Vest Inzhener i Tekhnika" No 6

Discusses, in general terms, use of wood, reinforced concrete and steel in USSR buildings from 1920 on.

32/49T39

STRELTSKIY, N. S.

PA 43/49T38

USSR/Engineering  
Construction Industry  
Steel - Standards  
"Our Problems in the Field of Steel Construction,"  
Prof. N. S. Streltskiy, Corr Mem, Acad Sci USSR,  
2 pp

Jun 48

"Stroi Prom" No 6

Stresses importance of economizing metal by proper  
designing of steel constructions, and of increas-  
ing durability of construction material. Claims  
that knowledge concerning construction work has  
not attained proper scientific level. Basic task  
[redacted]

USSR/Engineering (Contd) Jun 48

In steel construction is to bring order into this  
branch of industry.

43/49T38

STRELETSKIY, N. S. PROF.

PA 32/49T45

USSR/Engineering  
Statics  
Machinery - Construction

Nov/Dec 48

"Review of 'Machine Building,' Encyclopedic  
Handbook, Volume I, Book II," Prof N. S. Strelet-  
skiy, Corr Mem, Acad Sci USSR, 1 p

"Vest Inzener i Tekhnik" No 6

Reviews favorably Book is devoted to statics  
and strength of materials. Published by Mashgiz,  
Moscow, 1948.

32/49T45

PA 38/49T56

USSR/Engineering

Concrete

Bridges

"The Method of Differential Coefficients of Safety  
for Reinforced and Nonreinforced Concrete Design  
in Hydrotechnical Constructions," P. P. Laupman,

Engg., 4 pp

"Gidrotekhn Stroi" No 1

Evaluates three factors believed to influence the  
coefficient of safety in construction work -- forces,  
coefficient of possible overload by external forces,  
coefficient of possible reduction in quality of  
38/49T56

Jan 49

USSR/Engineering (Contd)

Jan 49

material, and coefficient of operating conditions.  
These factors should be considered because they  
influence the strength, stability, and durability of a  
given construction. Method was first worked out for  
construction of metal bridges and industrial plants by  
N. S. Streletskiy, Corr Mem, Acad Sci USSR, but it is  
considerably more complex for concrete and reinforced  
concrete constructions.

38/49T56

STRELETSKIY, N.S. (Prof)

USSR/Engineering - Hydraulics, Aug 51  
Structures

"Calculating Steel Gates of Hydraulic Structures by the Method of Limiting State," Prof N. S. Streletskiy, Corr Mem, Acad Sci USSR and Mem, Acad Sci Armenian SSR

"Gidrotekh Stroy" No 8, pr 9-13

Considers existing method of permissible stresses as inadequate, contradicting principle of coordinating design and metal conservation. Develops method of

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USSR/Engineering - Hydraulics, Aug 51  
Structures  
(Contd)

limiting state based on establishing:  
 $n$  - coeff of overloading,  $k$  - homogeneity coeff and  $m$  - coeff of operational conditions. Method provides for considerable conservation of steel. Discusses elimination of corrosion coeff from design of steel gates.

200178

STRELETSKIY, N. S.

USSR/Scientists

Dec 51

"Innovator of Bridge Building - Academician G. P. Perederiy," N. S. Streletskiy, Corr Mem, Acad Sci USSR

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 12,  
pp 1849-1853

Acad Grigoriy Petrovich Perederiy, born 11 Oct 1871, is still active in scientific work. Graduate of Inst of Transp Engineers and well known by scientific pedagogical and engineering activity. Laureate of Stalin prize. High points of activity are: Introduction of through beams of long spans

205T103

USSR/Scientists (Contd)

Dec 51

into railroad bridge building, use of tubular reinforcement filled with concrete, complete mechanization of concrete operations and 1st all-welded construction for city bridge in Leningrad. Since 1943, publishes works in form of periodic issues or monograph "Course in Bridge Building." Member of Communist Party since 1939.

205T103

STRELETSKIY, N. S.

STRELTSKIY, N. S., and others.

Stal'nye konstruktsii. Pod red. N. S. Streletskogo. Izd. 2.,  
perer. Uspushcheno v kachestve uchebnika dlja inzhenerno-stroitel'nykh  
vuzov i fakul'tetov. Moskva, Gosizdat lit-ry po stroitel'stvu i arkhitekture,  
1952. 852 p., illus., diagrs.

Title tr.: Steel constructions.  
For hangars see p. 559-569.

TB611.S75 1952

SU: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955.

USSR/Engineering - Hydraulics, Structures

Feb 52

Calculating Steel Gates of Hydraulic Structures, by  
the Method of Limit State, Prof S. V. Taranovskiy,  
Dr Tech Sci

"Gidrotekh Stroi" No 2, pp 38, 39,

Reviews article under similar title written by Prof  
N. S. Streletskiy and published in "Gidrotekh Stroi"  
No 8, 1951, evaluating it as beginning of important  
work in the field of further advancement of calcns  
by method of limit state.

212T67